## GENERAL NOTES

- 1. ALL LAMPS SHALL BE HIGH PRESSURE SODIUM UNLESS NOTED OTHERWISE.
- 2. OPERATING VOLTAGE SHALL BE 480 VOLTS FOR INTERSTATE LIGHTING AND 240 VOLT FOR CITY STREET LIGHTING UNLESS OTHERWISE SPECIFIED.
- 3. ALL BALLASTS SHALL BE REGULATOR TYPE.
- 4. REFRACTORS SHALL BE PRESSED PRISMATIC BOROSILICATE GLASS.
- 5. RIGID CONDUIT, INSTALLED ON STRUCTURES SHALL BE SUPPORTED AT LEAST EVERY TEN FEET AND WITHIN THREE FEET OF JUNCTION BOXES, LUMINAIRES, ETC.
- 6. CONDUIT EXPANSION JOINTS OR PROPER LENGTHS OF WATERPROOF FLEXIBLE CONDUIT SHALL BE PROVIDED AT EACH BRIDGE EXPANSION JOINT AND WHEN GOING FROM BRIDGE SUPERSTRUCTURE TO SUBSTRUCTURE.
- 7. CONDUIT EXPANSION JOINTS SHALL BE PROVIDED IN WALLS AT EACH LOCATION WHERE CONDUIT PASSES THROUGH WALL EXPANSION JOINTS.
- CONDUIT ACCESSORIES SUCH AS EXPANSION JOINTS, PULL BOXES, CONDULETS. ELBOWS, FLEXIBLE CONDUITS, ETC., SHALL BE INCLUDED IN THE PRICE BID FOR CONDUIT.
- 9. THE CONTRACTOR SHALL INSTALL A NYLON PULL CORD OR GALVANIZED PULL WIRE IN EACH EMPTY CONDUIT. THE COST OF THIS ITEM WILL NOT BE PAID FOR SEPARATELY AND SHALL BE INCLUDED IN THE COST OF THE CONDUIT.
- 10. EACH SERVICE POINT SHALL BE EQUIPPED WITH A 650 VOLT 2 POLE LIGHTNING ARRESTER.
- 11. THE CONTRACTOR SHALL PROVIDE THE SERVICE POLE, UNLESS OTHERWISE NOTED, SERVICE RISER, WEATHERHEAD, WEATHERPROOF ENCLOSURE, CIRCUIT BREAKER(S), LIGHTNING ARRESTER, AND THE NECESSARY WIRING FOR CONNECTION TO THE POWER SOURCE.
- 12. CONDUIT ON BRIDGES, WALLS, ETC., SHALL BE LOCATED WHERE IT IS NOT VISIBLE TO THE TRAVELING PUBLIC.
- 13. THE ON/OFF CONTROLS FOR EACH LIGHTING CIRCUIT SHALL BE PROVIDED THROUGH PHOTOCELL CONTROLLED LIGHTING CONTACTORS LOCATED AT THE PANELS, UNLESS OTHERWISE INDICATED.
- 14. ALL FUSES AND FUSEHOLDERS SHALL BE INLINE TYPE AND WATERPROOF. ALL FUSEHOLDERS IN LIGHTING STANDARDS WITH AN ALUMINUM TRANSFORMER BASE SHALL BE BREAKAWAY.
- 15. CONCRETE ENCASED CONDUIT SHALL BE INSTALLED UNDER ALL ROADWAYS.
- 16. RIGID STEEL CONDUIT SHALL BE USED ABOVE GRADE, WHERE EXPOSED TO DAMAGE, AND WHERE NOTED.
- 17. ELECTRICAL EQUIPMENT SUCH AS THE PHOTOELECTRIC CONTROL SYSTEM, CONTACTORS, PANELBOARD, ENCLOSURES, GROUND RODS, CIRCUIT BREAKERS, AND CONNECTIONS TO LIGHTNING ARRESTERS ARE CONSIDERED TO BE INCIDENTAL TO THE ELECTRICAL SYSTEMS AND ARE TO BE INCLUDED IN THE COST OF THE SERVICE PICK-UP POINTS.
- 18. HIGH MAST TOWER WITH FOUR 1000 WATT HPS TYPE T SEE SCHEDULE FOR QUANTITY AND TYPE.
- 19. HIGH MAST TOWER WITH SIX 400 WATT HPS TYPE TM SEE SCHEDULE FOR QUANTITY AND TYPE.
- 20. THE CONTRACTOR SHALL BEWARE OF OVERHEAD POWER LINES AND LOCATE LIGHTING TOWERS SUCH THAT THEY WILL HAVE TEN FEET MINIMUM CLEARANCE FROM DISTRIBUTION LINES OR TWENTY FEET MINIMUM CLEARANCE FROM TRANSMISSION LINES.
- 21. INSTALLATION SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL SAFETY
- 22. THE CONTRACTOR SHALL SUBMIT PHOTOMETRIC DATA AND DESIGN CALCULATIONS, FOR ANY SUBSTITUTED LUMINAIRES, TO VERIFY THE LIGHTING DESIGN CRITERIA.

LIGHTING DESIGN CRITERIA: MAINTENANCE FACTOR = 0.70UNIFORMITY RATIO (AVG./MIN.) = 3.0:1 MAXIMUM WIND SPEED = 90 MPH

23. THE CONTRACTOR SHALL FURNISH A ONE YEAR WRITTEN WARRANTY FOR PARTS AND DEFECTIVE WORKMANSHIP ON THE LUMINAIRES, POLES, LIGHTING CONTROL PANEL AND ALL THE OTHER ELECTRICAL EQUIPMENT.

#### LIGHTING NOTES:

- A. PRIOR TO START OF THE PROJECT, ALL UTILITIES MUST BE LOCATED.
- CONTRACTOR SHALL ROUTE ALL CONDUIT RUNS BETWEEN EACH FIXTURE AND FROM THE LAST FIXTURE TO THE UTILITY COMPANY SERVICE LOCATION IN THE MOST DIRECT ROUTE POSSIBLE.
- C. NO CONDUIT IS TO BE RUN ON PRIVATE PROPERTY.
- D. CARE MUST BE TAKEN IN THE INSTALLATION OF THE CONDUIT SYSTEM TO AVOID ANY DAMAGE TO EXISTING UNDERGROUND UTILITIES.
- E. THE CONTRACTOR SHALL SUBMIT PHOTOMETRIC DATA AND DESIGN CALCULATIONS FOR THE LUMINAIRES TO VERIFY THE LIGHTING DESIGN CRITERIA.

LIGHTING DESIGN CRITERIA:

- a. THE AVERAGE MAINTAINED ILLUMINATION FOR ROADWAY = 0.9 FC (MINIMUM). b. THE AVG./MIN. UNIFORMITY = 3.0:1 (MAXIMUM).
- c. THE LIGHT LOSS FACTOR = 0.7d. REFERENCE IES RP-8-00, ROADWAY LIGHTING.
- F. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CLIENT.
- G. ALL ELECTRICAL MATERIALS, SUCH AS CONDUIT, CABLES, WIRES AND JUNCTION BOXES, SHALL BE NEW U.L. LISTED AND MEET THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE, AND THE AMERICAN NATIONAL STANDARDS
- H. ALL POLES SUPPLIED FOR THIS PROJECT SHALL BE IN ACCORDANCE WITH "GDOT'S QUALIFIED PRODUCTS LIST (QPL)" FOR APPROVED SUPPLIERS FOR PROJECTS RECEIVING FEDERAL FUNDING.
- ALL LUMINAIRES SUPPLIED FOR THIS PROJECT MUST MEET THE GDOT STANDARD SPECIFICATION SECTION 921-LUMINAIRES FOR PROJECTS RECEIVING FEDERAL FUNDING.

### DEMOLITION NOTES:

FIXTURE

TYPE

- 1. CONTRACTOR SHALL REMOVE THE EXISTING LIGHT POLES AND LUMINAIRES AND
- 2. CONTRACTOR SHALL REMOVE TOP PORTION OF EXISTING FOUNDATIONS TO A MINIMUM OF 18" BELOW FINAL GRADE.
- 3. CONTRACTOR SHALL CUT EXISTING CONDUIT AT BASE OF POLES AND ABANDON EXISTING LIGHTING CONDUCTORS IN PLACE.
- 4. EQUIPMENT TO BE REMOVED INCLUDE, BUT ARE NOT LIMITED TO; PULL BOXES, RIGID CONDUIT, JUNCTION BOXES, WALL PACK FIXTURES AND SERVICE POINTS.

DESCRIPTION

U.L. WET LABEL WALLPACK, GRAY HOUSING,

3/4" CONDUIT ENTRY, PRISMATIC GLASS.

HIGH MAST LUMINAIRE, OPEN VENTILATED

LUMINAIRES PER HIGH MAST POLE RING.

MANUFACTURED OF BOROSILICATE GLASS.

MEDIUM ROADWAY LIGHTING PATTERN, NO

BOROSILICATE GLASS REFLECTOR AND

PRESSED PRISMATIC LENS SHALL BE

TOP-HINGE DOOR GLASS, INTEGRAL BALLAST,

REFRACTOR. SYMMETRIC LIGHTING PATTERN. 4

SHIELD.. 6 LUMINAIRES PER HIGH MAST POLE

LIGHTING FIXTURE SCHEDULE

480

VOLTAGE | MOUNTING | LAMPS

WALL

HIGH MAST

RING

HIGH MAST

RING

	SUMMARY OF QUANTIT	ES	
ITEM NO.	DESCRIPTION	UNI	T QUANTIT
441-0004	CONC. SLOPE PAV, 4 IN	SY	190
500-3101	CLASS A CONCRETE	YD3	290
511-1000	BAR REINFORCEMENT STEEL	LB	23,224
615-1200	DIRECTIONAL BORE	LF	1219
681-6620	LUMINAIRE, LOW MOUNTING, 150 W, HP SODIUM (TYPE A)	EA	12
682-1304	CABLE, TP THW, AWG NO 10	LF	6036
682-1306	CABLE, TP THW, AWG NO 6	LF	6036
682-3412	MULT COND CABLE, TP RHW, 2#1/0-1-#2	LF	6036
682-6108	CONDUIT, RIGID 3/4 IN	LF	400
682-6110	CONDUIT, RIGID 1 IN	LF	120
682-6120	CONDUIT, RIGID 2 IN	LF	1400
682-6219	CONDUIT, NONMETL, TP 2, 1 IN	LF	150
682-6222	CONDUIT, NONMETL, TP 2, 2 IN	LF	9000
682-9000	SERVICE PICK UP POINT A	LS	1
682-9000	SERVICE PICK UP POINT B - SP	LS	1
682-9020	ELECTRICAL JUNCTION BOX	EA	4
682-9021	ELECTRICAL JUNCTION BOX, CONC GROUND MOUNTED	EA	3
683-1101	LIGHTING TOWER, STEEL, 100 FT MG, INCL LOWERING EQUIP	EA	21
683-6566	HIGH LEVEL LUMINAIRE, TP 5, 400 W, HP SODIUM (TYPE TM)	EA	56
683-6586	HIGH LEVEL LUMINAIRE, TP 5, 1000 W, HP SODIUM (TYPE T)	EA	42
683-9025	LOWERING DEVICE POWER SUPPLY UNIT	EA	1

### ELECTRICAL ABBREVIATIONS

AVERAGE

FC FOOTCANDLE

GEORGIA POWER COMPANY

GEORGIA DEPARTMENT OF TRANSPORTATION

HIGH MAST TOWER (HMST FIXTURE)

HIGH MAST TOWER (MONGOOSE FIXTURE)

HIGH PRESSURE SODIUM

MS MAIN SERVICE

ELECTRICAL JUNCTION BOX

REMARKS

BRIDGE UNDERPASS

SEE 25-009

HIGH MAST

SEE 25-010/25-011

HIGH MAST

SEE 25-010/25-011

RIGID STEEL

PB PULL BOX

150 WATT

HPS

ITAW 000

HPS

400 WATT

HPS

# ELECTRICAL SYMBOLS

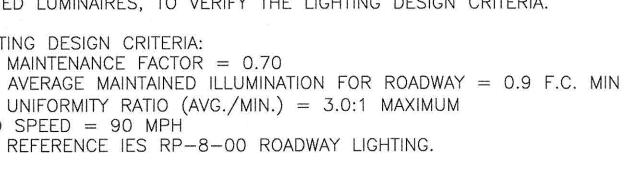
- ELECTRICAL JUNCTION BOX, CONCRETE GROUND MOUNTED
- PROPOSED SERVICE POINT 480 VOLTS, 240 VOLTS (PER DWG 25-004 AND 25-007)
- PULL BOX PROVIDE PER NATIONAL ELECTRICAL CODE AS REQUIRED.
- CABLE CABLE TO BE MULTIPLE CONDUCTOR 2-#1/0 & 1-#2 COPPER TYPE RHW/USE UNLESS OTHERWISE NOTED. NOTE: INDIVIDUAL CONDUCTORS ARE ACCEPTABLE, BUT MUST BE BID AS MULTIPLE CONDUCTOR CABLE. ALUMINUM CONDUCTORS ARE NOT ACCEPTABLE.
- GROUND ROD TO BE INSTALLED AT EACH GROUND MOUNTED LIGHTING STANDARD LOCATION
- CONDUIT, NONMETALLIC, 2" TP 2 (SCHEDULE 40 PVC) FOR LIGHTING
- ——L—I CONDUIT, RIGID GALVANIZED, SIZE AS INDICATED

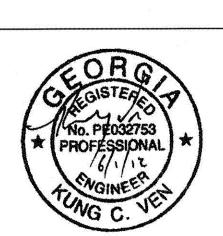
E-L- CONCRETE ENCASED DUCTBANK.

150 WATT HPS WALL MOUNTED TYPE A

HIGH MAST TOWER, NOTE 18

HIGH MAST TOWER, NOTE 19









STATE OF GEORGIA REVISION DATES DEPARTMENT OF TRANSPORTATION 12/63/12 OFFICE: PROGRAM DELIVERY LIGHTING PLANS I-75 @ US 41 ROCKY FACE DRAWING No.